

New England Biolabs Certificate of Analysis

Product Name: *Blue Protein Loading Dye*
Catalog Number: *B7703S*
Packaging Lot Number: *10195914*
Expiration Date: *01/2026*
Storage Temperature: *-20°C*
Specification Version: *PS-B7703S v2.0*
Composition (1X): *187.5 mM Tris-HCl, 6 % (w/v) SDS, 30 % Glycerol, 0.03 % Bromophenol Blue, (pH 6.8 @ 25°C)*

| Blue Protein Loading Dye Component List | | | |
|---|--------------------------|------------|----------------------|
| NEB Part Number | Component Description | Lot Number | Individual QC Result |
| B7705SVIAL | 30X Reducing Agent | 10177020 | Pass |
| B7703SVIAL | Blue Protein Loading Dye | 10173662 | Pass |

| Assay Name/Specification | Lot # 10195914 |
|--|----------------|
| <p>Electrophoretic Pattern The components of the Blue Protein Loading Dye are tested to ensure the banding pattern of an NEB protein ladder on a 10-20% Tris-Glycine gel shows discrete, clearly identifiable bands at each size fragment of the marker when stained with Coomassie Blue at a concentration of 0.1%.</p> | Pass |
| <p>Endonuclease Activity (Nicking) A 50 µl reaction in CutSmart® Buffer containing 1 µg of supercoiled PhiX174 DNA and a minimum of 10 µl of Blue Protein Loading Dye incubated for 4 hours at 37°C results in <10% conversion to the nicked form as determined by agarose gel electrophoresis.</p> | Pass |
| <p>Non-Specific DNase Activity (16 Hour) A 50 µl reaction in CutSmart® Buffer containing 1 µg of 1 kb Plus DNA Ladder DNA and a minimum of 5 µl of Blue Protein Loading Dye incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.</p> | Pass |
| <p>RNase Activity (Extended Digestion) A 10 µl reaction in NEBuffer 4 containing 40 ng of a 300 base single-stranded RNA and a minimum of 1 µl of Blue Protein Loading Dye is incubated at 37°C. After incubation for 16 hours, >90% of the substrate RNA remains intact as determined by gel electrophoresis using fluorescent detection.</p> | Pass |

This product has been tested and shown to be in compliance with all specifications.

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Nancy Considine
Production Scientist
06 Mar 2023



Michael Tonello
Packaging Quality Control Inspector
26 Jul 2023